California Regional Water Quality Control Board
Central Valley Region
Karl E. Longley, ScD, P.E., Chair

Linda S. Adams
Secretary for Environmental Protection

Sacramento Main Office
11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

Arnold Schwarzenegger
Governor

TO:	Margie Read, REAII Senior Environmental Scientist Irrigated Lands Regulatory Program	**FROM:**	Chris Jimmerson Environmental Scientist Irrigated Lands Regulatory Program
DATE:	16 May 2008	**SIGNATURE:**	*Original Signed By Chris Jimmerson*

MARCH 2007 ANNUAL MONITORING REPORT- OAKDALE IRRIGATION DISTRICT

Staff of the Central Valley Regional Water Quality Control Board (Regional Water Board) reviewed the Annual Monitoring Report (AMR) for the Oakdale Irrigation District (District) dated 28 February 2008. The Regional Water Board received this report on 29 February 2008. The District submitted this report to meet the conditions of the Monitoring and Reporting Program (MRP) Order No. R5-2003-0827 for Individual Dischargers under Resolution No. R5-2003-0105 and the associated Individual Discharger Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Individual Waiver) Order No. R5-2006-0054.

Staff prepared this memo to assist the District with MRP Order compliance and review it for consistency with the MRP and District's MRP Plan. Staff's conclusions and recommendations in this memorandum are pursuant to meeting the requirements of the Individual Discharger MRP and the District's MRP Plan. The review is divided into two major categories: (A) a discussion of administrative and compliance aspects and (B) a discussion of analytical aspects. The section titles in the two parts are the same as the titles used in the AMR.

A. ADMINISTRATIVE AND COMPLIANCE

- **Table of Contents**
  The District submitted its AMR according to the schedule required by the Resolution and includes the required major components except a report section summarizing precision and accuracy.

- **Executive Summary**
  Staff revisited the 17 August 2007 AMR comment letter to verify that the District complied with the four items in last years letter. Specifically, the District complied or did not comply to the extent described in the following items: (1) the District did not comply by collecting a complete set of equipment blanks or field blanks (see following Data Interpretation section), (2) the District complied by collecting the pH readings from the field rather than from the lab, (3) the District complied by collecting flow measurements

at each monitoring point, and (4) the District complied by conducting its storm season monitoring.

The results from sample site Sweet Lateral were absent (see following Monitoring Results section). The District needs to explain why it did not collect samples from Sweet Lateral during the storm event.

- **Data Interpretation**
  The DO results for the Storm Flow Monitoring Event (SFME) appeared to be high, which the District suspects that this was due to either recording the incorrect value or transcribing the value for percent saturation, rather than concentration. The District indicated that it notified personnel of the error and provided training to their monitoring staff.

  Laboratory quality control presented a sufficient number of matrix spikes, matrix spike duplicates, method blanks, laboratory control samples, surrogates, and calculated a relative percent difference meeting at least 90% of the acceptance range.

  The District did not present any results from any field duplicate analyses. In addition, it only collected two field equipment blanks out of five events. The MRP requires the District to collect a field duplicate and field blank at a frequency of one per monitoring event. This effort is to attempt to examine field methodology as well as sample handling. The District does not comply with this requirement for quality control.

B. ANALYTICAL ASPECTS

- **Monitoring Results**
  The District conducted the High Flow Monitoring Event (HFME) in July and the Low Flow Monitoring Event (LFME) in September, and the Storm Flow Monitoring Event (SFME) in December. Each irrigation event was over a two-day period, while the SFME was conducted in a single day.

  According to the AMR, the LFME was split over a two-day event because the laboratory did not have a complete set of bottles for 2,4-D and triclopyr during the 5 September event, which is not under the District's control. Sample collection for these constituents continued on 25 September. Results did not indicate any detections of these constituents.

  The AMR reported that the District was not able to conduct the second SFME because the sites were dry. To corroborate the dry sites, the District should provide photos. In addition, the AMR did not present monitoring results from Sweet Lateral for the 7 December SFME. The District needs to explain the absence of the Sweet Lateral SFME results.

  The following table represents the District's results for the period discussed in this AMR. The table columns are the shaded analytes that required testing. The AMR presented the Pesticide Use Reports and these did not indicate that the District used oryzalin or pendimethalin during the reporting period. The AMR reports that six pH exceedances

and one DO exceedance were observed. The sample results did not indicate any other exceedances.

Sample results from the SFME for 2,4-D were not apparent in the AMR. The chain of custody forms did indicate that the District requested 2,4-D analysis, but for some reason the laboratory did not conduct the analysis. The District needs to explain the absence of 2,4-D sample results.

Table of Monitoring Results

Sample Date	Station Name	Temperature	Oxygen, Dissolved	pH	SpecificConductivity	TDS	Turbidity	Flow	2,4-Dichlorophenoxyacetic acid	Diuron	Glyphosate	Oryzalin	Pendimethalin	Triclopyr	Phosphorus - Total (P)	Potassium	TKN	TOC
7/24/07	Coulter Pond	23.37	**6.45**	7.94	0.123	110	34.61	10	ND	ND	ND	ND	ND	ND	1.3	7.4	2	9.3
7/30/07	Langworth Pipeline	18.69	16.1	**8.71**	138.6	64	1.96	5	ND	ND	ND	ND	ND	ND	ND	2.8	ND	4.1
	Sweet Lateral	19.43	15.3	**9.58**	184.7	40	10.72	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.3
9/5/07	Coulter Pond	21.7	11.72	8.12	0.135	120	31.02	5		ND	ND	ND			2.5	12	1.7	10
	Langworth Pipeline	17.89	18.91	**8.89**	0.06	41	1.86	5		ND	ND	ND			ND	ND	ND	3.1
	Sweet Lateral	18.75	17.15	**9.3**	0.078	58	10.72	3		ND	ND	ND			ND	2.5	ND	4.8
9/25/07	Coulter Pond	17.94	13.68	8.42	0.147		103.3	5	ND					ND				
	Langworth Pipeline	16.16	23.06	8.29	0.365		0.94	3	ND					ND				
	Sweet Lateral	16.69	22.14		0.077		8.59	3	ND					11				
12/7/07	Coulter Pond	10.34	56.6	**8.64**	0.343	230	170.9	1		ND	ND	ND	ND	ND	1.1	11	3	3.9
	Langworth Pipeline	14.43	37.6	**9.03**	0.101	73	15.83	5		ND	ND	ND	ND	ND	ND	3.9	2.4	9.6

Shaded = Testing Required
ND = Non-detect
Blank field = No sample collected
Bolded result = Exceedance of water quality trigger